

REMARKS

Reconsideration of the above-identified application as amended is respectfully requested. Independent claim 1 and independent claim 3 have been amended as above indicated above. Independent claim 2 remains as originally filed.

Claim 3 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the Examiner has concluded that claim 3 contains improper Markush language and thus is indefinite. Claim 3 has been amended to recite "a process including at least one step selected from the group of steps consisting of: washing with water...and combinations thereof." Applicants respectfully submit that claim 3 as amended contains proper claim language and thus particularly points out and distinctly claims the subject matter which applicant regards as the invention. Accordingly, Applicants respectfully request that the rejection of claim 3 under 35 U.S.C. 112, second paragraph, be withdrawn.

Claims 1-3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lapidus, U.S. Pat. No. 6,300,268, or Obayashi, U.S. Pat. No. 6,025,292, or Japanese Published Pat. Application No. 10-202106, or Japanese Published Pat. Application No. 58-219942. The Examiner cites each of Lapidus (col. 2,3), Obayashi (its examples), JP '106 (its abstract) and JP '942 (its abstract) as teaching the regeneration of a spent catalyst by washing with water. The Examiner states that the taught spent catalysts appear to be suitable for decomposing voc's or organophosphonate compounds because they are the same metal oxides or activated carbon as cited in Applicants' claims. Applicants respectfully traverse this rejection.

Lapidus teaches a multi-step process for regenerating cobalt-containing catalysts, in particular cobalt supported on titania, deactivated by sulfur including the steps of first treating the spent catalyst with a stream of oxygen, air or oxygen enriched air to oxide the sulfur, next washing the catalyst with a liquid, preferably water, and thereafter contacting the washed catalyst with hydrogen or other reducing agent (see col. 2, lines 5-22 and col. 3, lines 10-33). Applicants respectfully submit that Lapidus

can not be read to teach regenerating a spent catalyst by simply washing with water, while ignoring the further steps taught by Lapidus of subjecting the spent catalyst to an oxidizing atmosphere prior to washing with water and then subjecting the spent catalyst to a reducing atmosphere post washing with water. Applicants respectfully submit that Lapidus lacks any motivation that would lead one looking to regenerate a spent catalyst to omit the oxidization and reduction steps and try only the step of washing the spent catalyst with water.

Obayashi et al. teaches a method of regeneration of a denitration catalyst (consisting of titania, tungsten trioxide and vanadium pentaoxide) by cleaning the spent catalyst with a solution having a hydrofluoric acid concentration of 0.3 to 3% by weight to remove silica compounds without damaging the structure of the catalyst (see col. 7, lines 33-47). In fact, Obayashi et al. teach away from washing the spent denitration catalyst with water, stating at col. 7, lines 36-38, that the effectiveness of the cleaning fluid "will be insufficient if the hydrofluoric acid concentration of the cleaning fluid is less than 0.3% by weight." Applicants respectfully submit that Obayashi et al. lacks any motivation that would lead one looking to regenerate a spent catalyst to omit the hydrofluoric acid component of the disclosed cleaning fluid and try only the step of washing the spent catalyst with water.

The abstract of JP'942 regenerating a deodorizing catalyst consisting of an oxide of a metal such as Mn, Co, V, Cr, Fe, Ni, Cu, Ag or Zn on activated carbon in a multi-step process consisting of first washing the spent catalyst with an aqueous ammonia solution having a pH of 10-11 to remove sulfuric acid or metal sulfate, then washing with water and baking the catalyst at a temperature of 200-300°C in an inert atmosphere. Applicants respectfully submit that the abstract of JP'942 can not be read to teach regenerating a spent catalyst by simply washing with water, while ignoring the further taught steps of subjecting the spent catalyst to treatment with aqueous ammonia prior to washing with water and then baking the spent catalyst. Applicants respectfully submit that JP'942 lacks motivation that would lead one looking to regenerate a spent catalyst to omit the ammonia treatment and baking steps and try only the step of washing the spent catalyst with water.

The abstract of JP'106 regenerating a hydrogenation catalyst consisting of palladium on activated carbon in a multi-step process consisting of first treating the spent catalyst with steam or hot water (40-150°C), then washing with water and cooling the catalyst to a temperature less than 40°C. Applicants respectfully submit that the abstract of JP'106 can not be read to teach regenerating a spent catalyst by simply washing with water, while ignoring the further taught steps of subjecting the spent catalyst to treatment with steam or hot water prior to washing with water and then cooling the spent catalyst. Applicants respectfully submit that JP'106 lacks motivation that would lead one looking to regenerate a spent catalyst to omit the steam/hot water treatment and cooling steps and try only the step of washing the spent catalyst with water.

Further, claim 1 has been amended to recite a method of regenerating a spent catalyst composition for decomposing organophosphonate compounds comprising removing phosphate-type species from the spent catalyst composition by washing the spent catalyst composition with water. Applicants respectfully submit that none of the cited references provides any motivation to remove phosphate-species from a spent catalyst by washing with water.

In view of the amendments made and the arguments presented herein, Applicants respectfully request that the Examiner reconsider the rejection of claims 1-3 under 35 U.S.C. 103(a) and the rejection of claim 3 under 35 U.S.C 112, second paragraph, and upon reconsideration withdraw the rejections and pass claims 1-3 to allowance.

If the Examiner wishes to expedite disposition of the above-captioned patent application, he is invited to contact Applicant's representative at the telephone number below.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Application No. 10/623,302
Amendment dated May 16, 2007
Reply to Office Action of February 22, 2007

Docket No.: 210_1091DIV

Applicant believes no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 03-0835, under Order No. 210_1091DIV from which the undersigned is authorized to draw.

Dated: May 16, 2007

Respectfully submitted,

By 

William W. Habelt
Registration No.: 29,162
MARJAMA & BILINSKI LLP
250 South Clinton Street
Suite 300
Syracuse, New York 13202
(315) 425-9000
Customer No.: 20874